By Ass't Proj. W. H. Chandler, College of Horriculture, U. of Mo.

pruning is probably the most indis-pensable part of the care of the orch- With a central leader form of tree Pruning benefits the trees in a of which are:

1. It keeps out disease.

2. Regulates the vigor of the tree.

3. Regulates size

4. Regulates shape

habit.

Pruning to Keep Out Disease. rough dead places in the bark and so, outer wood. The limb may be entired in pruning a tree for the open head, by killed by this canker. The amount at the time it is set out, five limbs at of canker injury may be influenced the most started from the main stem, in two ways by pruning. First, a tree are all that are desirable. In shapthoroughly pruned is not so liable to ing a tree to secure the central lead-be infected with canker, for the rea-er, the limbs should be spaced so son that the canker gets in through that each limb will have room to wounds made by limbs rubbing togeth- sprea! where it joins the main trunk; er and made on limbs picking fruit. In each case these conditions are others and have a weak union with more likely to prevail on unpruned the trunk. than on well praised trees. Second, Pruning to Regulate Bearing Habit. so far as my experience goes. I have uniformly observed more canker on the tree grows older it tends to hear dense trees than on trees kept open blooms on the end of every spur one enough to admit the sunlight to any year, and to set a very light bloom wounds that may be on the bark. In the year following. This habit is fection is controlled by cutting out called alternating. With most varie all small limbs infected with canker ties this does not begin until the tree and by cutting out the deed portions is rather old. For the first four or of the large limbs, cutting into five years of its fruitng life it will

Pruning to Regulate Vigor. In sections of the state, trees that poor, weak growin, were thrown into

limbs



CANKERS AND INJURED WOOD WOUNDS PAINTED

printing. If the tree is making a slow true of interest on the land, etc. growth, in some soils especially, it cess to an apple tree, especially winter pruning.

Pruning to Regulate Size of Tree. Cutting away a considerable amount of the tree each year, whether cutting from the ends of the twigs or cutting away large limbs, is a dwarfing process, under average conditions, whether the pruning is done in winter or summer. This matter has been carefully tested by experiment trees that received a large amount of to observe this in the Missouri Experiment Station orchard and in other | terial for market. orchards of the state. However, there ar exceptions to this rule. Thus, in and in this case a tree that is severe-

In some cases it is desirable to mg are more desirable than larger for pure bred stock to take home trees thirty or thirty-five feet apart, may be more cheaply done.

Pruning to Regulate Form. Whether the open head is more desirable than the tree with a central mule. leader, there is a considerable difference of opinion among orchardists. wood for the same size tree; and that feeding." pruning, picking, and spraying can be done cheaper. The tree with the central leader is harder to cover in all to bring about disorders of the di-

these processes. at the body of the tree; and if any tite and a poorer utilization of the limbs are broken, it is a less serious food thaa is consumed.

Next to spraying, thorough annual injury because there are more limbs

where the leader is permitted to grow great many ways, the most important throughout the life of the tree the methods of care become quite expensive. There is a tendency for it to form forks at the top of the tree and if these are not corrected there will be a splitting of the top in years of 5. Helps to regulate the bearing heavy yield. With trees on poor soil this is of little importance. However, in well kept orchards on good A close inspection of trees in any soil when the leader reaches a height unpruned orchard as much as fifteen of about twelve feet it should be kept or twenty years old will show a great cut back. If kept in this way it is many limbs infected with the various probably as desirable as the open forms of apple canker-sanken or head, and with some varieties more

so that it will not be crowded by

With varieties like the lugram, as healthy wood and painting the bear annual crops of medium size, while later it will bear alternately a heavy crop and no crop at all. If the frest kills the one crop, there are at were standing still, unking a very least two successive failures. For this and for other research, it is more a healthy, stock growth by severe desirable to have a mop of medium the every year than a large crop

every other year. The libral condition, then, is to keep the tree in a mate of vigor equal to that of the tree that has been bear ing three or four years, and has not come into the habit of alternating, The most desirable method of doing this is by pruning just severely enough to keep the tree in the condition of growth of the young time. If this kind of pruning is practiced, it will probably be a simple matter to keep the tree from ever marting the alternating habit.

Pruning to Renovate an Old Orchard. In Missouri there are unquestion-ntly many old orehards that in the right hands could be worked over into profitchle bearing. No one should take hold of an old orehard, however, if he does not expect to apray, and wall a year or two, and sometimes several, for returns. Unless at least sixty per cent of the trees are in good condition and ten or lifteen per cent more can be brought into good condition, it will probably be undesirable to attempt making the old orchard profitable. The cultivation. eic., of the spaces where the trees are missing will be as expensive as if the trees were there, and the same is

In working over the old orchard becomes in a manner barkbound, and the trees that are hopelessly weak it requires severe pruning to throw it and injured should be cut out. All into a healthy growth. Of course, too dead portions in all trees should be buch pruning may be given and the removed. The cankered areas should free thrown into too vigorous vegeta- be cut from all limbs and the wounds tive activity, in which case it is likely pointed. The trees will usually have too many limbs and some of these Pruning, then, is an invigorating pro- should be cut out, so that spraying and other processes of care can be more conveniently done.

### LIVE STOCK IN MISSOURI Advantages of Location and Pasture Are Unequalled by Other

States. "Missouri's location and crops put her in first rank as a live stock state,"

tions for years, and uniformly those says E. A. Trowbridge, assistant professor of animal husbandry of the the pruning for twelve or fifteen years College of Agriculture. "Located as are smaller than those that received she is, between the producing West little pruning. We have had occasion and the consuming East, she is the natural ground for fitting the raw ma-"Kansas City is the doorway to the

ereat Northwest. Cattle and sheep very poor soils or in the case of trees that supply the meat-enting people of on sod, they may become barkbound. America come largely from the West. They are shipped to Kansas City to ly pruned may at the end of the year be fattened in the corn belt. On the be larger than a tree that was un- natural road to the consuming East, That is, in a poor soil the stands Missouri, with her large acretree annually pruned is likely to be age of corn and hay and her unlarger than the one receiving no equalled bluegrass pastures, ready to fit this stock for market.

"Missouri has had an important dwarf a tree-to keep down its size- place in live stock production over especially if the trees were set close since the civil war. The men who together. Trees twenty-five feet apart bring meir stock to Kansas City from that are kept down in size by prun- the West, look to Missouri, largely,

"In light horse and mule production since spraying, pruning and picking Misouri is second to no other state. The Missouri mule still holds its high rank. Texas has more mules, but they lack the quality of the Miscouri

"Missouri ranks well in the production of cattle, sheep and hogs. The The advantages of the open head are breeders are striving for better qualthat all the fruits receive sufficient ity and the feeders are working to sunlight; that there is more fruiting ward more economical methods of

Sudden changes in feed are liable gestive tract. When changing from The advantages of the central lead- old to new corn only a small part of er are that the tree is less liable to the ration should be changed at once. break with a load of fruit; there is Derangements of the digestive syslittle chance for a limb to split down tem lead to a falling off in the appe-

Lots of men tire themselves to eath looking for an easy place.

The satisfying quality in LEWIS' Single Binder is found in no other Sc cigar. Adv.

It seems the irony of fate that while the grass widow is in clover, the real widow should be in weeds.

CURES ITCHING SKIN DISEASES. Cole's Carbolisaive stops itching and make the skin smooth. All druggists. 25 and 50c. Adv

### Creditors.

"Hliggins says he owes everything to his wife."

"That isn't true," replied Bliggins father-in-law. 'His wife quit lending him anything years ago and then he started in owing me."-Washington

Millions of Red Cross Seals on Sale. Over 80,000,000 Red Cross Christ mas seals are now on sale in almost every large city and nearly every state in the United States The proceeds go for the benefit of the antituberculosis movement in the commu nity where the seals are sold. So earefully has the sale been organized throughout the country that with the exceptions of the states of Florida. Oklahoma, Nevada and Idaho, Red Cross seals will be on sale in almost every city, town, village and hamlet in the United States, and even in Hawaii, Porto Rico and the Canal

### They Presented Arms.

Two very charming young ladies were chatting in a tramear the other evening.

"So you've been down to the camp?" said one. "Yes; and it's splendid down

"Did the soldiers have their arms

with them?" "Of course they did. You don't suppose they would leave them at

"I shouldn't like to be there when they were firing. I hate firing."
"Why, silly, they don't fire."
"Don't they?" What do they do with

their arms, then? "Why, they put them round you, of course, and it's ever so nice."

## A CLERGYMAN'S TESTIMONY,

The Rev. Edmund Heslop of Wigten, Pa., suffered from Dropsy for a year. His limbs and feet were swollen and puffed. He had heart fluttering, was dizzy



and exhausted at the least exertion. Hands and feet were cold and he had such a dragging sensation across the loins that it was difficult to move. After using

Rev. E. Heslop boxes of Dodds Kldney Pills the swelling disappeared and he felt himself again. He says he has been benefited and blessed by the use of Dodds Kidney Pills. Several months later he wrote: I have not changed my faith in your remedy since the above statement was authorized. Correspond with Rev. E. Hes-

lop about this wonderful remedy. Dodds Kidney Pills, and per box at your dealer or Dodds Medicine Co., Buffalo, N. Y. Write for Household Hints, also music of National Anthem (English and German words) and recipes for dainty dishes. All 3 sent free.

### Wireless Map.

A novelty in the way of maps has the new employee, object is to advertise the facilities now afforded in Germany for "draht lose" telegraphy. German stations are, of course, given special prominence on the map, and in this connection it is interesting to note that the station at Neuen is claimed to be the most powerful in existence, its range being 2,100 miles. This is two hun dred miles more than that of Eiffel

### Old Landmark Gone.

The Blaine schoolhouse in Mars Hill up on the hill, the one James G. Blaine honored years ago by giving a bell, which still hangs in the belfry. is no more. It has been converted into a storeroom and moved to another site. A good many bright boys and girls, now old men and women. graduated from the historic building, and no doubt there is a feeling sorrow as the old schoolhouse leaves the foundation it was builded upon years and years ago.-Kennebec (Me.) Journal.

### Opera In the Boxes.

What was the story of the opera? What I heard ran about like this: In the first act I learned that Mrs. Wallaby, the society leader, is about to sue her husband for divorce. In the second act I learned that Miss Lotta Plunks smuggled in that famous pearl necklace, and in the third I heard that Mr. Gerald Piffle is rapidly drinking himself to death."

### He Answered Truly. Father—How is it that I find you kissing my daughter? Answer me,

mir! Young Man-Fine, sir; fine!-Satire. Life is a grind, but it at least sharp-

Every invalid woman is invited to consult our Staff of Physicians, Surgeons and Specialists, at the Invalid's Hotel and Surgical Institute, Buffalo, N. Y., by letter or personally at my expense.-R. V. PIERCE, M. D.

# I Invite Suffering Women

There is every reason why women should not trust their delicate constitutions in the hands of unskilled persons. It requires a thorough medical education to appreciate and understand the delicate female organism. every reason why she should write or personally consult an experienced specialist.

As a powerful, invigorating tonic, "Favorite Prescription" imparts strength to the whole system and to the organs distinctly feminine in particular. For "run-down," debilitated women of all occupations

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is unequaled as a restorative tonic. As a soothing and strengthening nervine "Favorite Prescription" allays and subdues nervous excitability, irritability nervous exhaustion, and other distressing symptoms commonly attendant upon functional and organic diseases of the feminine organs. It induces refreshing sleep and relieves mental anxiety and despondency.

Dr. Pierce's Favorite Prescription is devised and put up by a physician of vast experience in the treatment of women's maladies. Its ingredients have the indorsement of leading physicians in all schools of practice.

The "Favorite Prescription" has been sold by dealers in medicine in its liquid form for over 40 years. Now it can also be obtained of them in tablet form-or send 50 one-cent stamps to Dr. Pierce for trial box.

Dr. Pierce's Pleasant Pellets invigorates the stornach, liver and bowels. One to three a dose.

Send 31 one-cent stamps to pay cost of wrapping and mailing only on a free copy of Dr. Pierce's Com-mon Sense Medical Adviser, 1008 pages, cloth-bound, Invalid's Hotel and Surgical Institute, R. V. Pierce, M. D., President, Buffalo, N. Y.

"It Helped Me So Much." Mas. F. W. Mynns, of Bosines, Pa. ays, "Your "Favorite Prescription" as done men wonderful lot of good, "Seven years ago when our first

close by wishing you much



# PUTNAM FADELESS

LIKE THE WEATHER.



Gung comm Romeo Hammletts-I see the weather forecast says "continued cold." Komick Manne-Probably referring

to your audience last night.

Ample Sleeping Accommodations. A man who owns a 160 acre farm in 'alifornia has discovered the largest bedroom in the world. One day he hired a new hand and spoke to him very kindly, welcoming him to the step. meals at the family table and telling him he could have access to all the reading matter in the house.

"But where shall I sleep?" asked

just been issued by the German imperial postoffice, which has compiled a "Young man," said the farmer, "that is immaterial to me. You see about chart showing the principal wireless telegraph stations in the world. The object is to advertise the facilities good to you as a place to sleep is at In Use For Over 30 Years. your disposal."—The Popular Maga Children Cry for Fletcher's Castoria

End of a Noted Folly.

The monocle has long since been out of fashion in England, and is soon to disappear from Paris, which has been its last stronghold. It was invented by a Dutch dandy, and its evil appeared at the congress of Vienna in 1814, when it was worn by its in ventor. One folly, at least, has had only about a century of life.

### Retort Discourteous.

Stranger (looking at the taximeter) Nine dollars and fifty cents! I told wanted to come the most direct way, and I think you've been driving me round about, Cabby-Round agout, ch? You ought o have hired an acroplane.-Judge.

His Successor.

"I suppose you expect your son to step into your shoes when you retire?" I hardly expent that; but he has already taken my seat in the front TOW.

Excess of Riches. "He has nine tons of coal in his

cellar." "That's nothing. I've got only one in, but it's paid for."-Detroit Free

Mrs. Winslow's Soothing Syrup for Children seething, softens the gums, reduces inflamma-tion, aliays pain, cures wind colle, Mc a bottle in

Reason.

"Pa, why do they call it the rhi-"Because it has such a thick rind,



Cures the sick and acts as a preventive for others. Liquid given on the tongue. Safe for broad mares and all others. Best kidney remedy; Six and \$1 a bettle; \$5 and \$10 a dozen. Sold by oil druggists and horse goods so, or sent, express paid, by the manufacturers

SPOHN MEDICAL CO., Chemisis, GOSHEN, INDIANA

### MADE HIM SOMEWHAT TIRED

Mose Had Good Excuse for Wishing to Be Rid of the Company of Sam Jackson.

"Twan't all account o' dat yaller gal. Saliny," explained Mose, talking citly difficulty through the bandages that swathed his face. "I goes out walking wid her and

along comes dat Sam Jackson, what she's been keeping company with Widout saying a word dat man comes over and busts me in de mouf. No sooner did I get up dan, bam! He lands on my lef' year and over I goes again.

After that he bit me in this year and then in the other one; and stomped on me while I was down. Vaen I got up and began to run he followed, kicking me every yuther

I never got so tired of a cuiled man in all my life!"

Important to Motners
Examine carefully every bottle of
CASTORIA, a safe and sure remedy for infants and children, and see that it

One of His Worst.

The Doctor-Did you hear about that Methodist preacher's daughter down south who turned sleuth, hunted up the pickpocket who had robbed her of her purse, and finally landed him in the penitentiary? The Profeseffects upon the eye were at once sor—Good for her! She was an M. noted by oculists. The monocle first E. sis, with a vengeance. — Chicago Tribune.

Demands of Trade.

"It would seem a flagrantly clear case," said the magistrate, adding, to the burglar, who had been haled be-fore him. "What have you to say for yournelf?"

"Not much, your bonor. But I hope you can give me a short sentence This is my busy season "- Judge

They're Simple Folk. "Do you think two could live on my salary?" "Two Fiji Islanders might."

YOU CAN CURE CATARRH by using Cole's Carbolisalve. It is a most active remedy. All druggists. 25 and 50c. Adv

As a general thing the kind of man who wears a watch on his wrist doesn't need all his pockets to carry his money in.

Especially where flirting is concerned, a little learning is a dangerous



Clears bad

complexions The regular use of Resinol Soap, with an occasional light application of Resinol Ointment, stimulates the skin, permits natural, healthy action, and rids the complexion of pimples, blackheads, redness and roughness,

quickly, easily and at little cost.

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